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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,131	06/24/2003	Steve Doe	884A.0005.U1(US)	4021
29683	7590	12/01/2004	EXAMINER	
HARRINGTON & SMITH, LLP 4 RESEARCH DRIVE SHELTON, CT 06484-6212			WANG, GEORGE Y	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,131

Applicant(s)

DOE, STEVE

Examiner

George Y. Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 21,22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Election/Restrictions***

1. Applicant's election with traverse of claims 1-20 in the reply filed on September 16, 2004 is acknowledged. The traversal is on the ground(s) that species 2 (claim 23) and species 3 (claim 24) are "but different definitions of the same disclosed subject matter, varying in breadth and scope." This is not found persuasive because the MPEP clearly states that "species are always the specifically different embodiments" (MPEP 806.04(e)). In the present case, species 2 and 3 do not contain an commonality of operation, function, or effect since one's non-transparent state is a reflective and the other is selectively emissive. Unless a generic claim links these two by reading on each of these views, it would be burdensome to examine these two species together. While Applicant may argue that claim 1 is generic, the MPEP makes it clear that "the generic claim cannot include limitations not present in each of the added species claims" (MPEP 806.04(d)). For instance, if only the selectively emissive state of claim 1 were search and examined, the species containing the reflective state would clearly not recite all the limitations of claim 1. However, since Applicant has provisionally elected species 1, claims 1-20, which may read on one of species 2 or 3, Examiner will examine either specie 2 or 3, and not both, in addition to species 1 since it would not be burdensome.

Otherwise, the requirement is still deemed proper and is therefore made FINAL.

Specification

2. The abstract of the disclosure is objected to because it not one paragraph. In addition, it is a mere copy of the claims. Applicant is reminded that a patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative. Also, the language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leibowitz et al. (U.S. Patent No. 4,500,173, hereinafter "Leibowitz") in view of Weber et al. (U.S. Patent No. 5,686,979, hereinafter "Weber").

6. As to claims 1, 5, and 23, Leibowitz discloses a display device (fig. 1, ref. 10) comprising a first electrode (fig. 1, ref. 20), a liquid crystal layer (fig. 1, ref. 20) connected to the first electrode, a second electrode (fig. 1, ref. 28), a switchable optical layer (fig. 1, ref. 26) having in use either a transparent state or a non-transparent state being electrically switchable between the transparent state and a the non-transparent state where the non-transparent state is a reflective state (col. 6, lines 44-56), and a third electrode (fig. 1, ref. 24) positioned between the liquid crystal layer and the switchable optical layer.

However, the reference fails to specifically disclose a liquid crystal layer under the first electrode.

Weber discloses a display device where the liquid crystal layer (fig. 1, ref. 18) is under the first electrode (fig. 1, ref. 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have positioned the liquid crystal layer under the first electrode since one would be motivated to apply predetermined voltages to the LC layer from the drive device in order to control light modulation for efficient light usage and individual manipulation of each pixel (col. 4, line 64 – col. 5, line 6).

7. Regarding claims 2-4, 6-10 and 12-19, Leibowitz discloses the display device as recited above where the third electrode (fig. 1, ref. 24) is shared by the LC layer and the switchable optical layer, where the electrode are either pixellated or unitary, also having associate pixel switches, where the first electrode (fig. 1, ref. 14) is a pixellated transparent electrode comprising distinct electrodes (col. 5, lines 31-32), and where the switchable optical layer (fig. 1, ref. 26) is arranged to be switched as a whole.

8. As per claim 11 and 20, Leibowitz discloses the display device as recited above with a first polarizer (fig. 1, ref. 12) positioned above the first electrode, a second polarizer (fig. 1, ref. 22), and a backlight (fig. 1, ref. 26), however, the reference fails to specifically disclose a second polarizer under the second electrode and above the backlight.

Weber discloses a display device having a second polarizer (fig. 1, ref. 34) under the second electrode (fig. 1, ref. 22).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a second polarizer under the second electrode and

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above the backlight since one would be motivated to separate randomly polarized light into its plane-polarized components in order to transmit all of the light have polarization state to the alignment of the liquid crystals (col. 5, lines 31-46). Ultimately, this enables reflected light to have a relatively large bandwidth to optimize the transmission ratio (col. 7, lines 40-42; col. 8, lines 10-25) in mobile LCD devices.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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